Product Information

Super-I/O Module with Front Panel I/O • CC6-ACID
Super-I/O Module for Rear I/O Systems • CC0-CHILLOUT

Document No. 2330 • Edition 2004/05

Available as a companion board to several EKF CompactPCI CPU cards, the CC6-ACID (CC0-CHILLOUT) is provided with the legacy I/O ports of a classic PC, e.g. serial and parallel interfaces. Interconnection between the CC6 (CC0) I/O module and the host CPU board is achieved by the LPC (Low Pin Count) interface. As an option, the CC6-ACID (CC0-CHILLOUT) is available with a rugged on-board 2.5-inch hard disk drive.

The connectors COM1/2, LPT, mouse and keyboard are situated on the CC6-ACID front panel, whereas the CC0-CHILLOUT has been designed solely for rear I/O. In addition, both boards are provided with several on-board connectors, e.g. for attachment of a floppy disk drive. The Super-I/O companion boards can be attached either to the left or to the right of the CPU card (top or bottom mounting).

CC6-1-ACID

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The CC6-ACID (CC0-CHILLOUT) communicates with the host CPU by means of the LPC interface. This is a multiplexed ISA bus, enabling the Super-I/O controller chip to emulate the legacy I/O interfaces. Among these are parallel and serial ports, the PS/2 connectors, and last not least the classic 1.4/2.8MB floppy disk controller. As an option, the CC6-ACID (CC0-CHILLOUT) provides MIDI and joystick attachment, and control lines for fans with either tachometer output or pulse width modulation input.

By connecting the boards together, the hosts ATA/IDE interface is also available on the CC6-ACID (CC0-CHILLOUT). Optionally, the board is equipped with a robust 2.5-inch hard disk drive, particularly suited for use in a rugged environment.

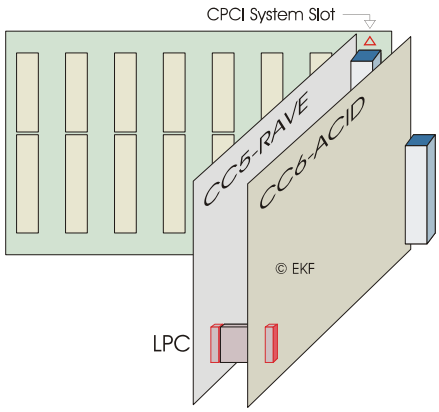
The CC6-ACID can be mounted either on the left (bottom) side of the CPU board (version CC6-3 only), or right (top) side (both CC6-1 and CC6-3). The way of attachment (top or bottom with respect to the CPU) can be easily changed by oneself (this is not true for the CC0-CHILLOUT). Suitable CompactPCI host-CPU boards are the CC2-TANGO, CC5-RAVE, CC7-JAZZ and CC8-BLUES.

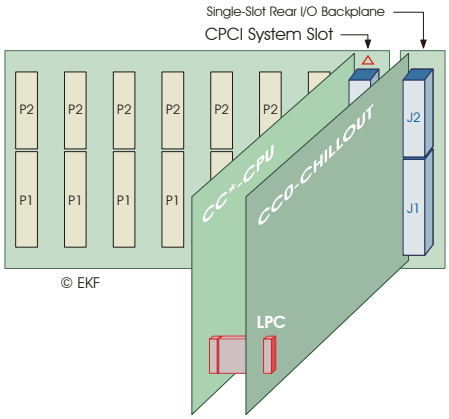
Regarding the CC6-1-ACID, the connectors COM1, COM2, LPT, PS/2 keyboard and mouse can be reached from the boards front panel (width 8HP). The CC6-3-ACID comes with a 4HP front panel (LPT connector removed). When using the CC6-3, mouse and keyboard are sharing the same Mini-Din connector by means of an external splitter cable.

The CC0-CHILLOUT does not provide any connector on its front panel, which is shared with the CPU board and 8HP wide in total. Instead, all signals are wired to the connectors J1/J2. By means of an additional rear I/O transition module (CCZ-RIO), the I/O connectors are available from the back panel. The CC0 comes ready assembled with the CPU board only.

Additional I/O functions are provided by on-board pin-headers on the CC6-ACID (CC0-CHILLOUT).

The Super-I/O companion boards must be inserted beside the CompactPCI bus. No backplane is required for the CC6-ACID. The CC0-CHILLOUT however needs a single-slot rear I/O backplane (P1/P2) to be present.





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Feature Summary CC6-ACID and CC0-CHILLOUT	
Form Factor	Single size Eurocard (160x100mm[2]) ▸ Front panel width CC6-1: 8HP (40.6mm) ▸ Front panel width CC6-3: 4HP (20.3mm) ▸ Joint front panel width CC0 & CPU board: 8HP (40.6mm)
LPC Super-I/O Chip	LPC47B27x, parallel port, 2 serial ports, floppy drive controller port, keyboard controller & mouse port, infrared port, MIDI/gameport, fan control ports, GPIOs, serial IRQs
Front Panel Connectors [4]	▸ CC6-1: keyboard PS/2, mouse PS/2, COM1 COM2 (RS-232E 9-pos. D-Sub male), LPT (25-pos. D-Sub female) ▸ CC6-3: keyboard PS/2, mouse PS/2 available with external splitter-cable (accessory), COM1 COM2 (RS-232E 9-pin D-Sub male)
On-Board Connectors [1]	LPC interface, IDE/ATA 40-pin header 2.54mm, IDE/ATA 44-pin header 2.00mm, floppy disk header 34-pin 2.54mm Optional: FFC/FPC floppy disk 26-pos. ZIF receptacle [2], floppy disk power, 2 x fan header (pulse width modulation), 2 x fan header (tacho generator), MIDI/gameport header
J1/J2 CPCI respectively Rear I/O Connectors	▸ CC6-ACID: J1, allows for redundancy in power attachment 3.3V 5V 12V, in addition to LPC connector ▸ CC0-CHILLOUT: J1/J2, utilization as rear I/O handover connectors to a single slot backplane P1/P2, in addition a suitable rear I/O transition module is required
Rear I/O Interfaces [2]	▸ J1: IDE, PS/2 keyboard, PS/2 mouse, joystick, Ethernet [3], video [3] analog / digital ▸ J2: Floppy disk, LPT, COM1/2 (TTL and optional RS-232E), utilities, USB [3]
On-Board Functions [1]	Speaker, LED IDE activity, optional LEDs: GPIO21, GPIO22, GPIO43, GPIO60, GPIO61, 3.3V, 5V, 12V
Hard Disk Option	HDD 2.5-inch optional on-board, Ultra ATA/100
MTBF	0.185 * 10^6h

1 Some of the on-board connectors and on-board functions are available as an option only - please discuss your needs with EKF before ordering

2 Functions/features available only with CC0-CHILLOUT

3 These options require removing of the particular host CPU front panel connectors in order to enable redirection of the respective signals - please discuss your needs with EKF before ordering

4 Functions/features available only with CC6-ACID

Subject to technical changes

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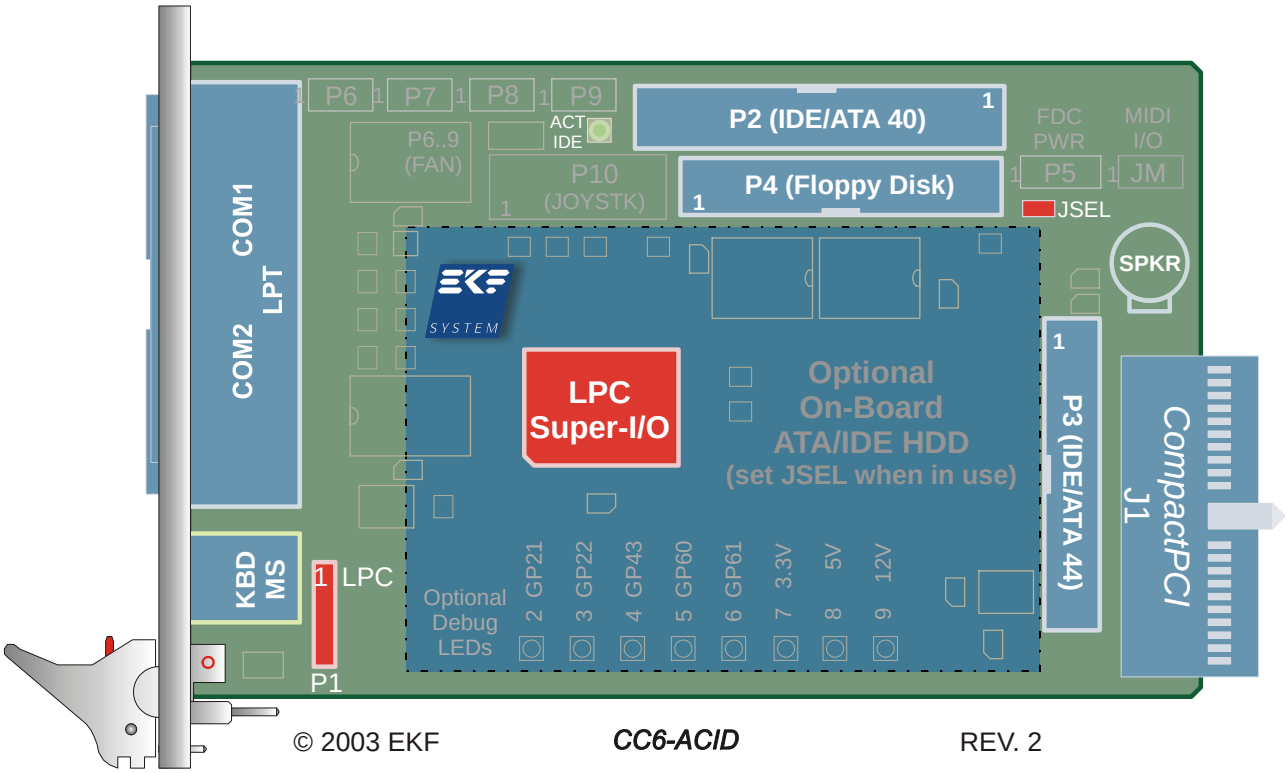
Component Assembly CC6-ACID



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CC6-3-ACID

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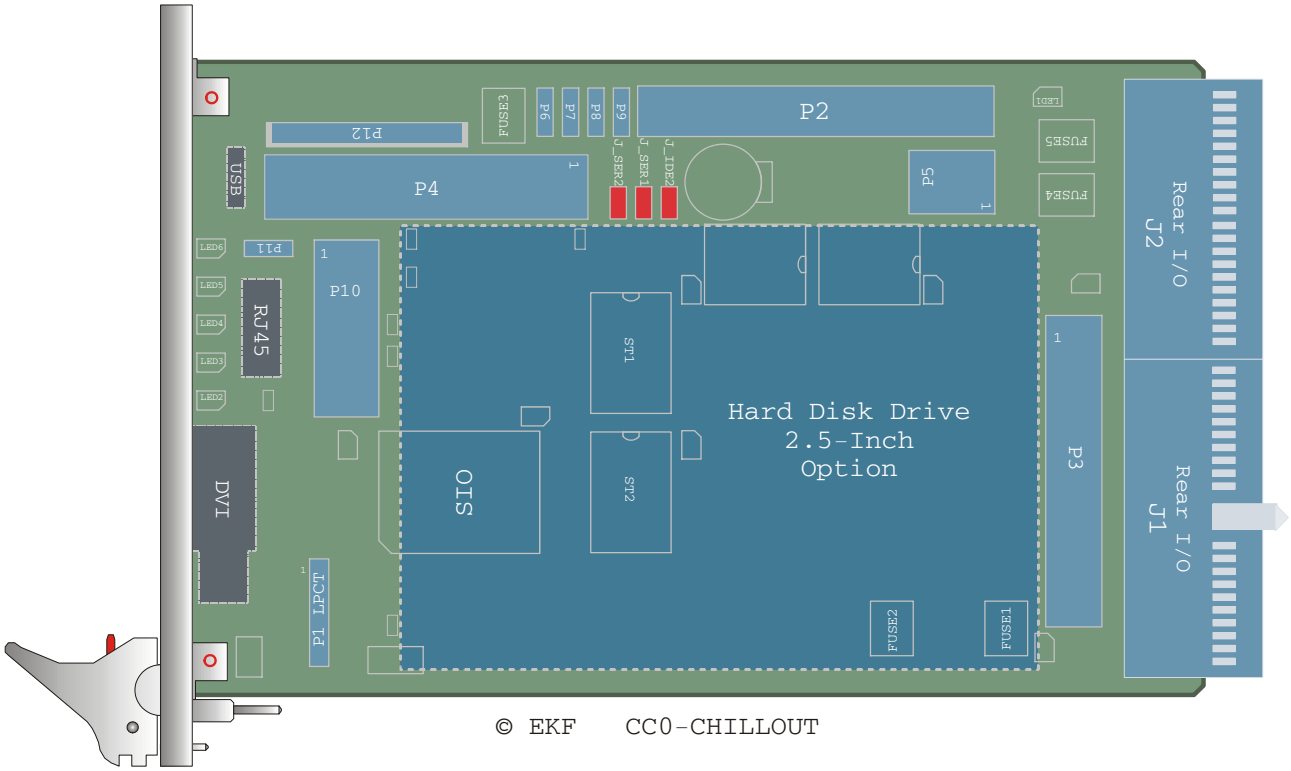
Component Assembly CC0-CHILLOUT



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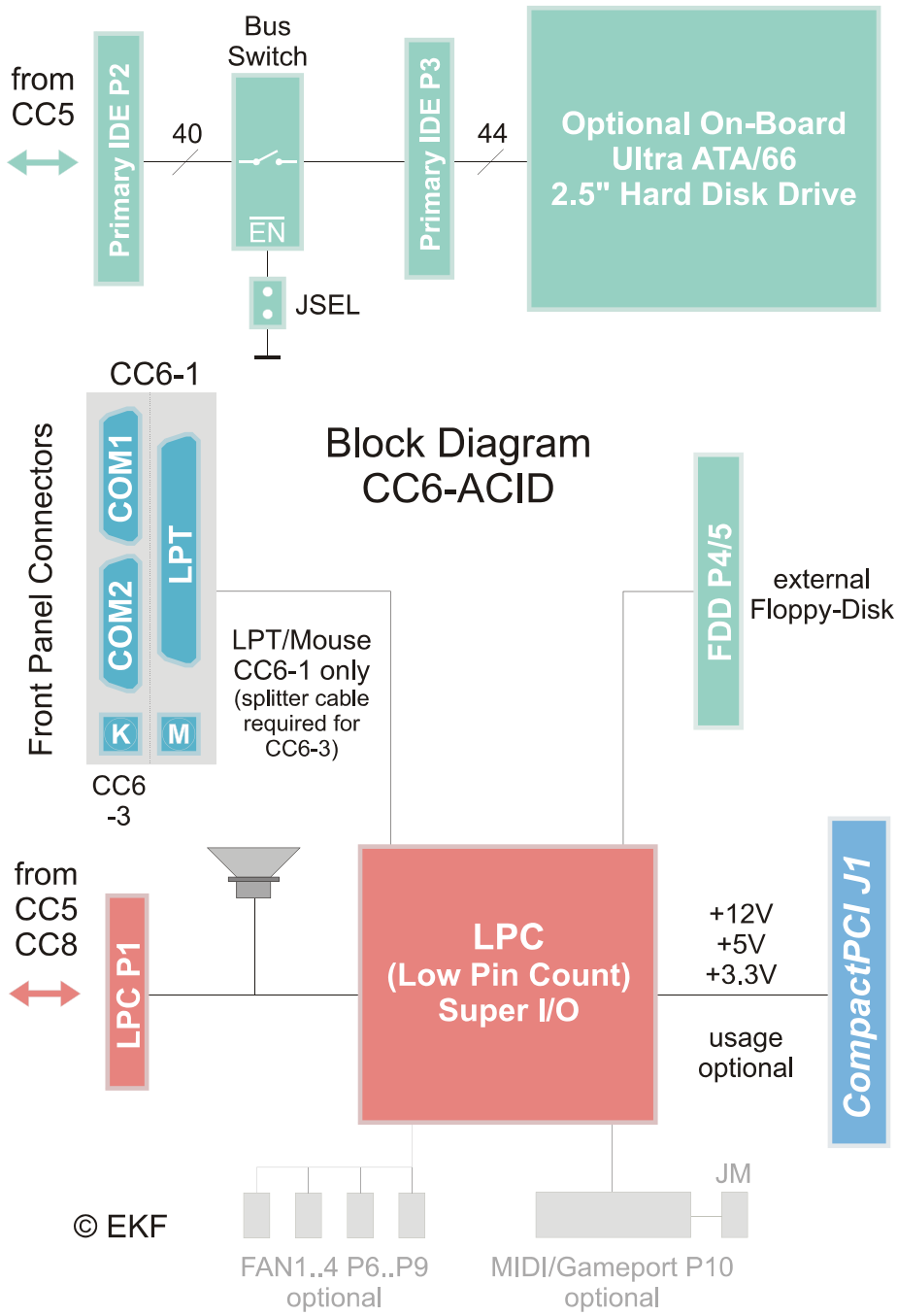
Block Diagram CC6-ACID



Please note: In order to make use of the header P3 (IDE interface for 2.5-inch hard disk), either connected to an on-board HDD or an external device, the jumper JSEL must be set. However, if P3 is not in use, JSEL must be removed in order to avoid reflections on the IDE bus caused by tapped signal traces.

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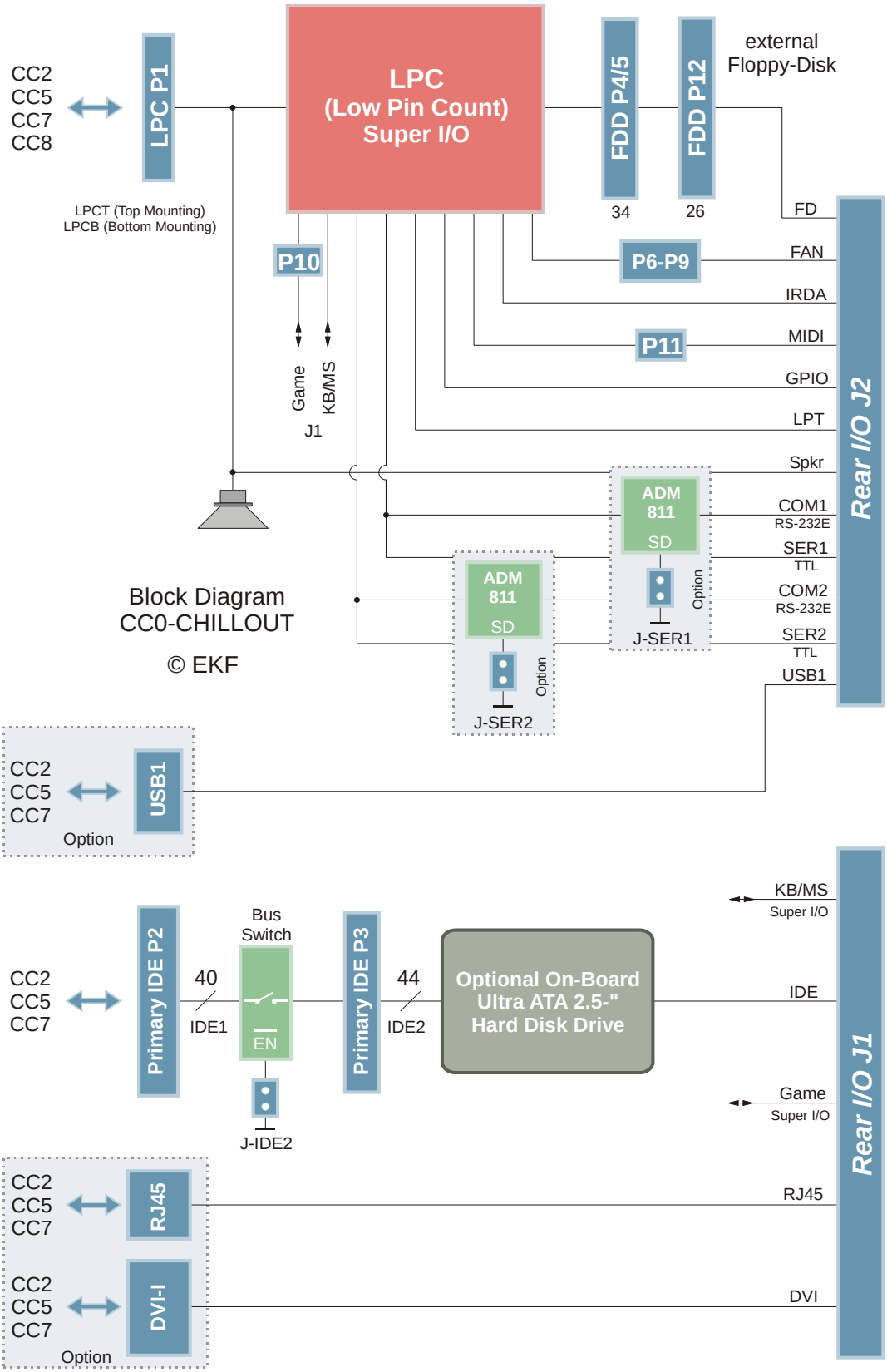
Block Diagram CC0-CHILLOUT



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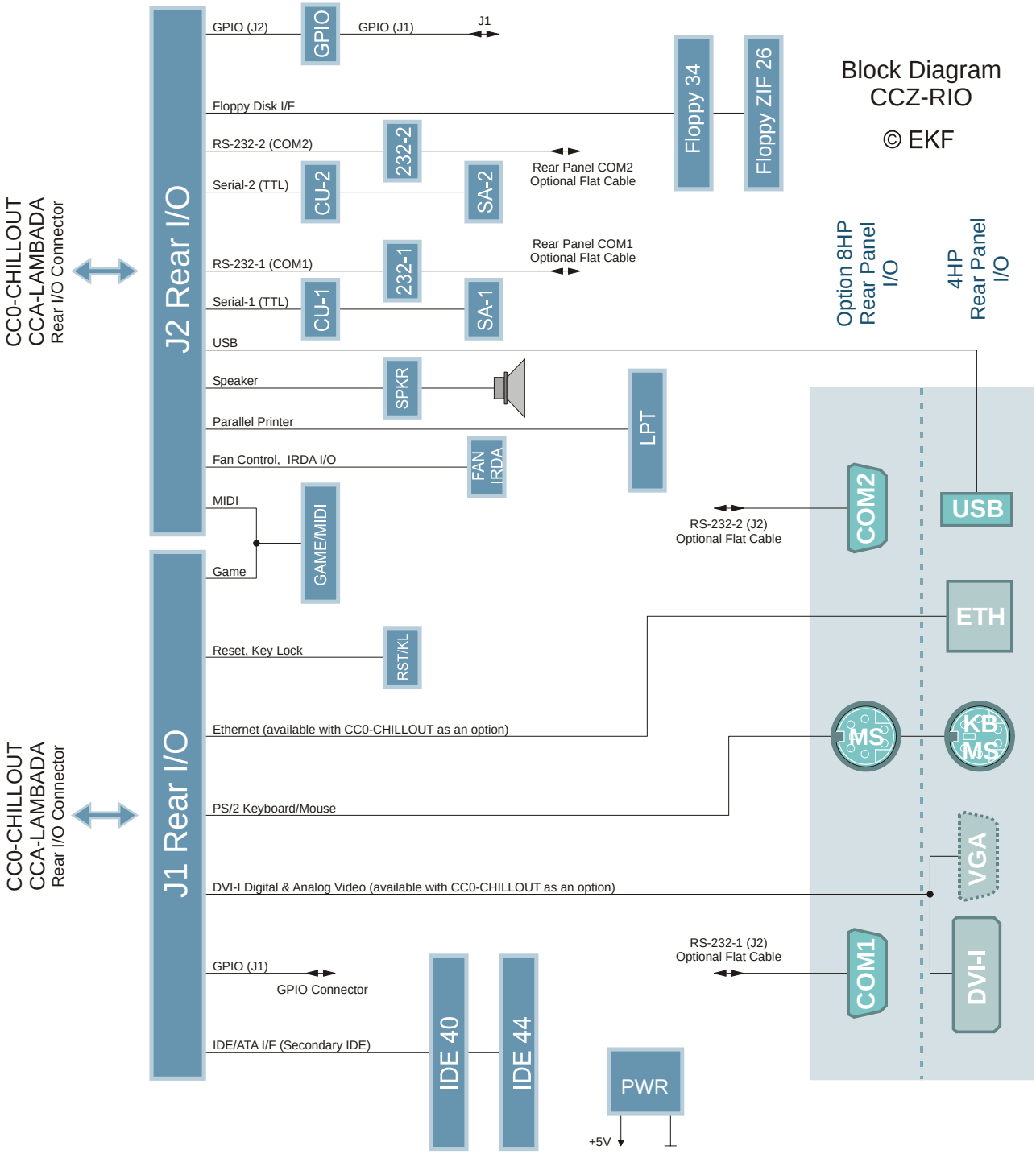
Block Diagram CCZ-RIO



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Ordering Information		
Alias	Ordering No.	Short Description
ACID	CC6-1-ACID	3U Super-I/O module, expansion board to the CC2-TANGO, CC5-RAVE, CC7-JAZZ and CC8-BLUES, front panel width 8HP, to be mounted on top of the CPU (to the right of the CPU)
ACID	CC6-3-ACID	Similar to CC6-1-ACID, front panel width 4HP, without parallel port connector, keyboard/mouse combined in one Mini-DIN connector (external splitter cable available as accessory), to be mounted on the top or bottom of the CPU (to the right or left of the CPU)
	CC6-8-HDK	Option hard disk, available together with CC6-1-ACID and CC6-3-ACID, completely mounted
	280.7.400	External keyboard/mouse Y-splitter-cable Mini-DIN male to 2 x Mini-DIN female (required for CC6-3 only)
CHILLOUT	CC0-1-CHILLOUT	3U Super I/O module for rear I/O systems, various assembly options and on-board hard disk possible, available only as ready assembled unit together with host CPU board, shared front panel 8HP in total
RIO	*CCZ-1-RIO*	*Rear I/O transition module for CC0-CHILLOUT*
	932.2.01.000	P1/P2 single slot rear I/O backplane

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